Wireless Scoring Board

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Wireless Scoring Board

Main Problem: In Firmenich, there is a blind panel to help researchers analyze the components of products. As blind employees are not able to work by themselves, we need more assistants to do data collection. The whole process is error-prone and inefficient.
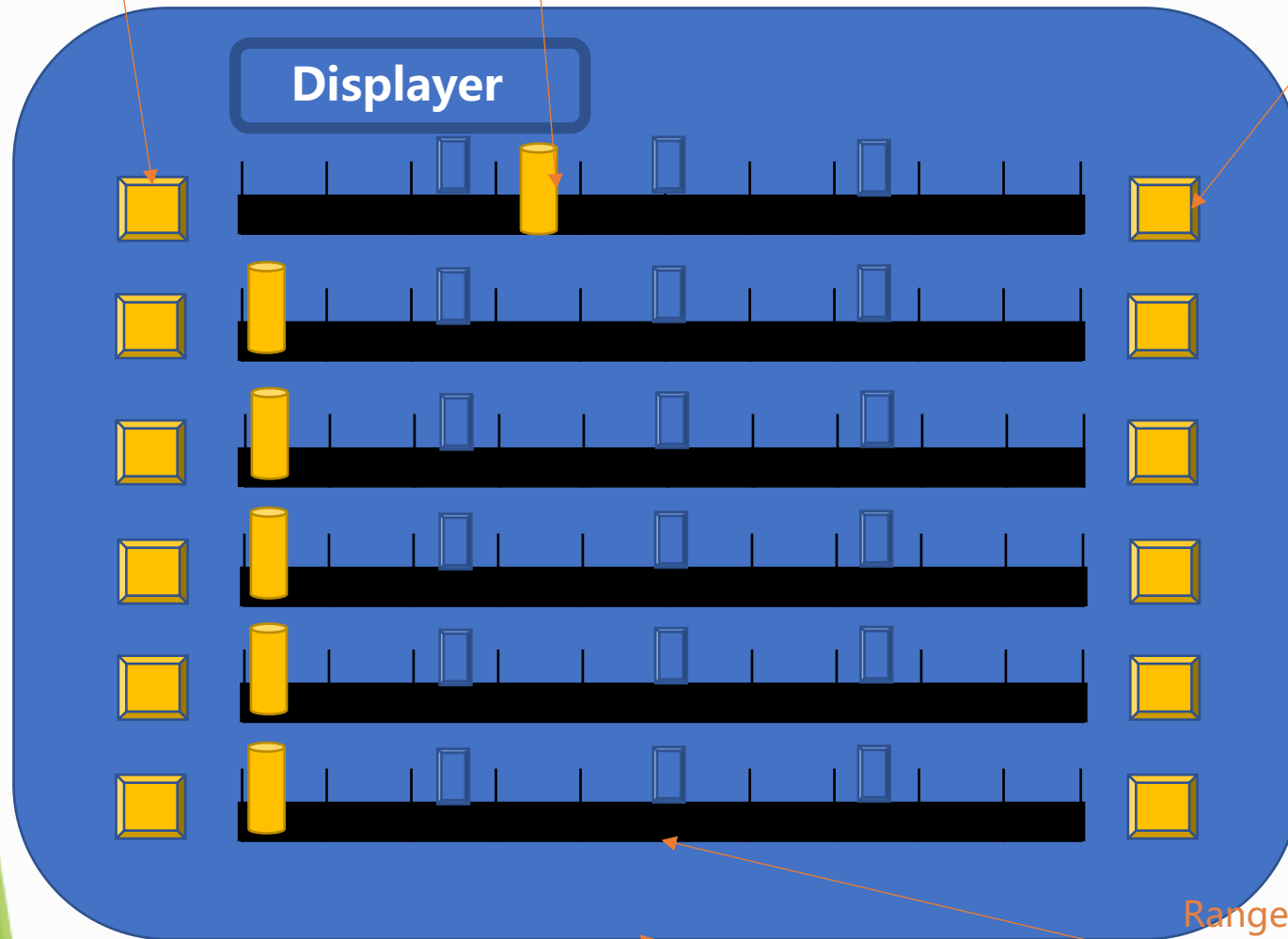
Solution: We want to design a physical device that is easier for blind employee to give ratings and send the data to a host computer. It makes the whole process more accurate and efficient.

Wireless Scoring Board

Send Button: will send data to master

Sliding bar to give ratings: Blind employees will slide this bar to give ratings.

Speaker Button: will speak out the ratings to blind employee
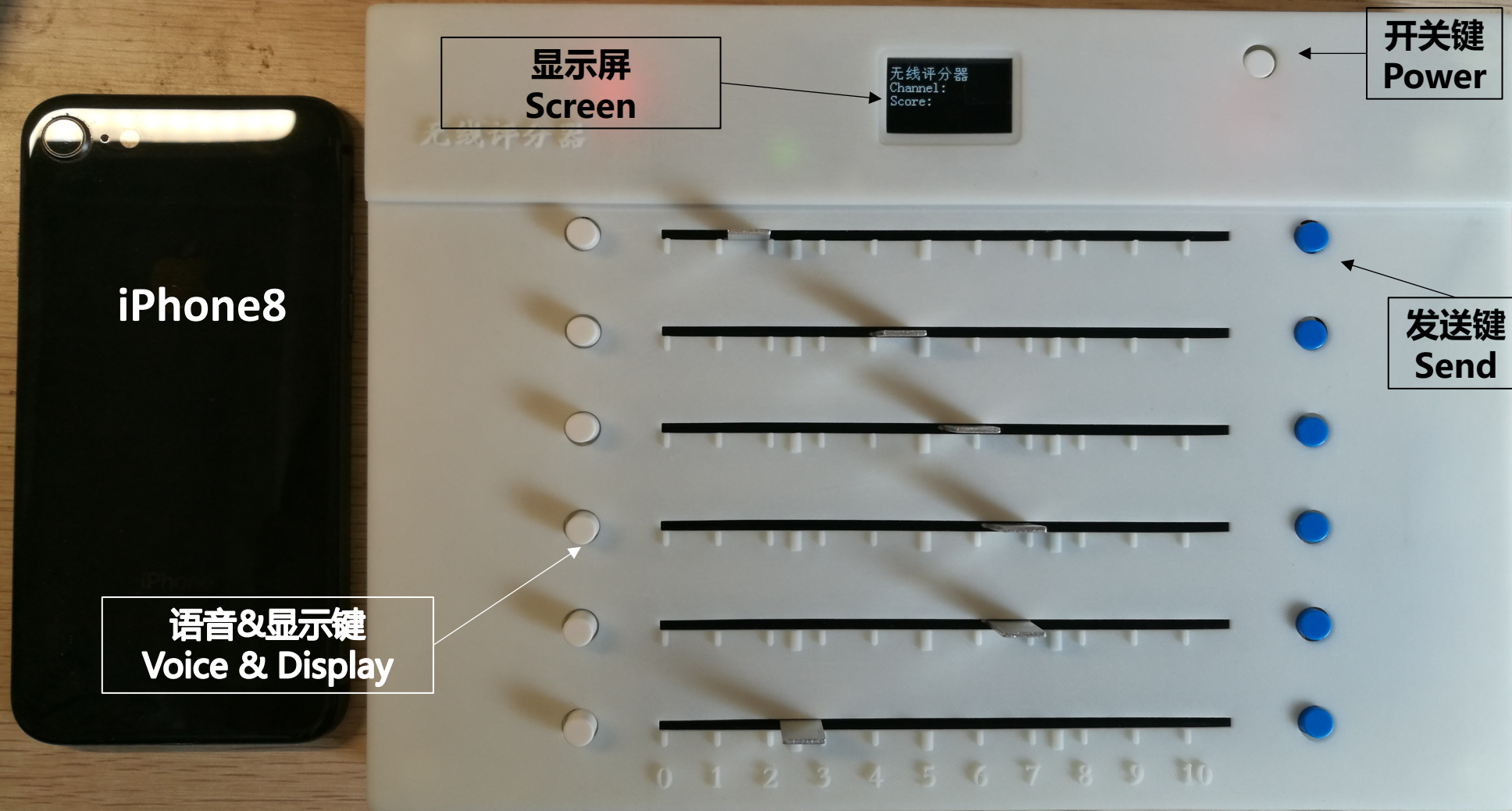
Displayer

Instructions :
1. Use sliding bar to give ratings from (0.0 - 10.0)
2. Push Speaker Button to double check if the rating is right
3. Push Send Button to send the data to master
4. After all clients finish rating, the master will process all data.

Other Requirements :
1. At least support 20 client devices at the Same time.
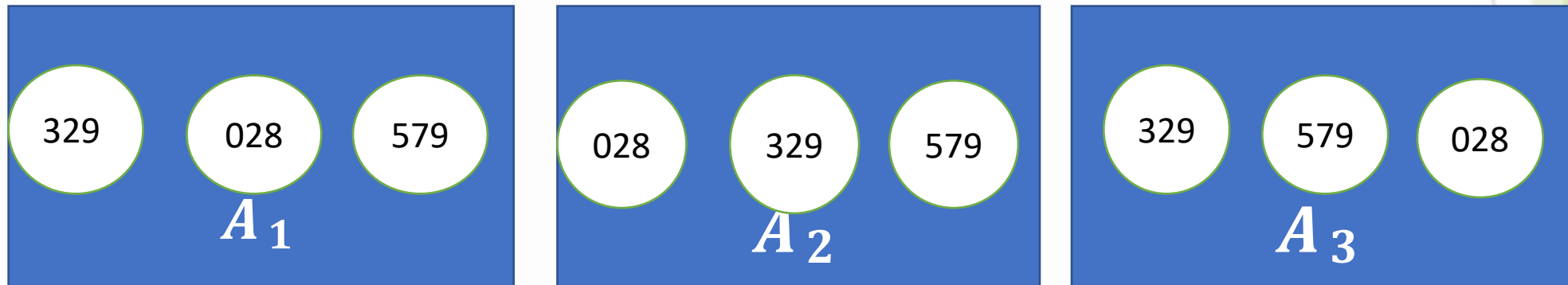2. The device should be small, light.

Range from 0.0 ~ 10.0
There is a small bump per 1.0 unit (easier for blind employee to. touch)

Speaker is at the bottom

Front View

Firmenich
for good, naturally

The 1st generation Wireless Scoring Board

显示屏
Screen

无线评分器
Channel:
Score:

开关键
Power

发送键
Send

iPhone8

语音&显示键
Voice & Display

0 1 2 3 4 5 6 7 8 9 10

Firmenich
for good, naturally

Example (Client Part) : Blind employee will give ratings to 3 attributes of three products. Everyone has a device to give and send ratings anytime. There is a unique id for each product. For Product1, id is 329.

Three Products : $P_1 329$, $P_2 028$, P_3 579

Three Attributes: A_1 , A_2 , A_3

A_1	A_2	A_3
329 028 579	028 329 579	329 579 028

As the data can be sent anytime in any order, let's assume an order of data sent is : 329 028 579 028 329 579 329 579 028

Example (Master Part) : after ratings are done, host computer format and process all data received.

Sequence:
329 028 579 028
329 579 329 579
028

Open the Device → **Export as Excel**

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	A	B	C	D	E	F
1		测评员编号	奶味（特征1）	咖啡味（特征2）		
2		1				
3		2				
4		3				
5	产品编号1	4				
6		5				
7		6				
8		7				
9		8				
10		9				
11						
12		测评员编号	奶味（特征1）	咖啡味（特征2）		
13		1				
14		2				
15		3				
16	产品编号2	4				
17		5				
18		6				
19		7				
20		8				
21		9				
22						

数据输出 +

Thank you for listening!